

FHWA BULLETIN

SUBJECT: Distribution of Manual Titled: "Insulation
of Buildings Against Highway Noise"
(Tech Share Report No. FHWA-TS-77-202

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Distributed with this Bulletin is a manual titled "Insulation of Buildings Against Highway Noise." This manual is intended to provide guidance for anyone involved in noise insulation of family dwellings, and for application and evaluation under NEEP Project No. 21 (FHWA Notice N5080.62, dated January 17, 1977).

The manual includes procedures for determining the acoustical insulation of planned or existing buildings against highway noise and procedures to identify construction modifications which will give desired increases in structural noise reduction to meet interior design levels. A new exterior wall transmission loss rating called the "Exterior Wall Noise Rating (EWNr)" is introduced.

Procedures are also included for estimating ventilation requirements and energy consumption changes due to acoustical modifications. However, these procedures have been generalized for nationwide applicability. For a more accurate study and design of ventilation and energy requirements, it is suggested that the cited reference, the ASHRAE Handbook of Fundamentals, be consulted.

Attached to this Bulletin are four addenda sheets which have been prepared subsequent to the printing of the manual. These include:

1. A procedure for "CALCULATION OF COMPOSITE EWNr BEYOND LIMITS OF FIGURE 7."
2. An additional table of "COEFFICIENTS OF THERMAL TRANSMITTANCE (U-FACTORS) FOR BASIC ROOF-CEILING CONSTRUCTIONS."
3. REVISED TABLE 16.
4. Additional notes for page 63 under Table 17, and page

18 under Table 7.

The procedure in the manual is still considered to be in the developmental stage and subject to revision or refinement based on experience gained on NEEP Project No. 21 and other applications. Comments on the adequacy and validity of the manual will be solicited upon completion of the NEEP Project.

Each regional and division office is being provided with two copies for internal circulation, and sufficient copies for distribution to each holder of the Highway Noise Notebook. The manual is intended for insertion under the "Abatement and Mitigation" section of the notebook. Division offices are also being furnished three additional copies for each State highway agency.

Announcement brochures are being sent to the regional offices. Additional copies of the manual are available from the Implementation Division, Office of Development, HDV-21.

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Attachments